

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A directed medication system to minimize the potential of an adverse drug reaction to a prescribed medical therapy, said directed medication system comprising:

a drug metabolism test component comprising a medical sample receiving apparatus having at least a first sample holding pad configured to receive a user's biological sample to identify one or more predefined drug metabolism risk markers in said user's biological sample that predict a high probability of organ dysfunction that can cause said ~~for determining the presence of markers that are indicative of a potential~~ adverse drug reaction to said ~~[[a]]~~ prescribed medical therapy; and

a written prescription instruction component containing a first instruction that directs a user to obtain said drug metabolism test component and to follow a said test component instructions to submit said ~~[[a]]~~ sample for testing, and a second instruction that directs said user ~~on how~~ to obtain a prescribed ~~customized~~ medical therapy containing a prescription for a medication based on a result of said testing wherein said medication is selected to minimize that minimizes the probability of said adverse drug reaction caused by said user taking said medication ~~potential for an~~

~~adverse drug reaction, said customized medical therapy being based on a
result of said testing.~~

2. (Currently amended) The system of Claim 1 wherein said one or more predefined drug metabolism risk markers is selected from the group consisting of DNA and enzymes.
3. (Original) The system of Claim 1 wherein said drug metabolism test component is a genomics-based test.
4. (Withdrawn – previously presented) The system of Claim 3 wherein said drug metabolism test component comprising:
 - a hinged folder containing said first sample holding pad wherein said first sample holding pad is impregnated with chemicals to lyse cell membranes and immobilize nucleic acids wherein said first sample holding pad has a pad indicia, said first sample holding pad configured for receiving a user's biological sample wherein said biological sample is a buccal cell sample; and
 - a buccal cell sampling swab wherein said swab has indicia linking said swab to said indicia wherein said first instruction further includes instructions for collecting, applying and submitting said user's buccal cell sample.

5. (Currently amended) The system of Claim 1 wherein said second instruction further directs said user to present said result of said testing to a healthcare provider to obtain said prescribed ~~customized~~ medical therapy containing a prescription for said ~~[[a]]~~ medication selected to minimize the probability of said ~~that minimizes the potential for an~~ adverse drug reaction caused by said user taking said medication.
6. (Withdrawn – currently amended) The system of Claim 1 wherein said written prescription instruction component includes an instruction component and a prescription component wherein said prescription component includes at least a conditional dosage prescription for said ~~[[a]]~~ medication selected to minimize the probability of ~~that minimizes the potential for an~~ adverse drug reaction caused by said user taking said medication, said conditional dosage prescription being based on said result of said drug metabolism test component.
7. (Withdrawn – currently amended) The system of Claim 6 wherein said conditional dosage prescription further includes a prescription portion instructing a prescription provider to dispense said medication based on said ~~the~~ result of said drug metabolism test component.
8. (Withdrawn – currently amended) The system of Claim 7 wherein said

prescription portion includes a homozygous positive test instruction, a heterozygous mid-positive test instruction and a negative test instruction instructing said prescription provider to dispense said medication based on said ~~the~~ result of said drug metabolism test component being a homozygous positive test, a heterozygous mid-positive test or a negative test.

9. (Withdrawn – previously presented) The system of Claim 7 wherein said conditional dosage prescription includes a plurality of separate prescriptions wherein said plurality of separate prescriptions includes a first prescription for a homozygous positive test result from said drug metabolism test component, a second prescription for a heterozygous mid-positive test result from said drug metabolism test component and a third prescription for a negative test result from said drug metabolism test component.
10. (Withdrawn) The system of Claim 6 wherein said prescription component further includes an initial dose prescription.
11. (Withdrawn – currently amended) The system of Claim 10 wherein said conditional dosage prescription includes a prescription portion instructing a prescription provider to dispense said medication of said initial dose prescription based on said ~~the~~ result of said drug metabolism test component.

12. (Withdrawn – previously presented) The system of Claim 11 wherein said prescription portion includes a homozygous positive test instruction, a heterozygous mid-positive test instruction and a negative test instruction instructing said prescription provider to dispense said medication based on the result of said drug metabolism test component being a homozygous positive test, a heterozygous mid-positive test or a negative test.
13. (Withdrawn – previously presented) The system of Claim 11 wherein said conditional dosage prescription includes a plurality of separate prescriptions wherein said plurality of separate prescriptions includes a first prescription for a homozygous positive test result from said drug metabolism test component, a second prescription for a heterozygous mid-positive test result from said drug metabolism test component and a third prescription for a negative test result from said drug metabolism test component.
14. (Withdrawn – previously presented) The system of Claim 10 wherein said initial dose prescription for an initial dose of said medication is selected from the group consisting of mercaptopurine, flououracil, or azathioprene.
15. (Withdrawn – previously presented) The system of Claim 6 wherein said conditional dosage prescription is an initial dosage of said medication.

16. (Withdrawn – currently amended) The system of Claim 15 wherein said conditional dosage prescription includes a prescription portion instructing a prescription provider to dispense said medication based on said ~~the~~ result of said drug metabolism test component.
17. (Withdrawn – previously presented) The system of Claim 16 wherein said prescription portion includes a homozygous positive test instruction, a heterozygous mid-positive test instruction and a negative test instruction instructing said prescription provider to dispense said medication based on the result of said drug metabolism test component being a homozygous positive test, a heterozygous mid-positive test or a negative test.
18. (Withdrawn – previously presented) The system of Claim 16 wherein said conditional dosage prescription includes a plurality of separate prescriptions wherein said plurality of separate prescriptions includes a first prescription for a homozygous positive test result from said drug metabolism test component, a second prescription for a heterozygous mid-positive test result from said drug metabolism test component and a third prescription for a negative test result from said drug metabolism test component.

- 19.** (Withdrawn – previously presented) The system of Claim 15 wherein said initial dosage of said medication is a dose of mercaptopurine, fluorouracil, or azathioprene.
- 20.** (Withdrawn) A directed medication system comprising:
a drug metabolism test means for determining the presence of one or more predefined drug metabolism markers; and
a prescription instruction means for obtaining a customized medical therapy based on the results of said drug metabolism test means.
- 21.** (Withdrawn) The system of Claim 20 wherein said drug metabolism test means is selected from the group consisting of DNA and enzymes.
- 22.** (Withdrawn) The system of Claim 20 wherein said drug metabolism test means is a genomics-based test.
- 23.** (Withdrawn) The system of Claim 20 wherein said prescription instruction means includes a first instruction means directing said user to obtain said drug metabolism test means and to follow the instructions provided with said drug metabolism test means, and a second instruction means directing said user to obtain said customized medical therapy based on said results of said drug

metabolism test means.

24. (Withdrawn) The system of Claim 20 wherein said prescription instruction means includes an instruction means and a prescription means wherein said prescription means includes at least a conditional dosage prescription for said customized medical therapy based on said results of said drug metabolism test means.
25. (Withdrawn) The system of Claim 24 wherein said conditional dosage prescription includes a prescription portion instructing a prescription provider on dispensing said customized medical therapy based on the results of said drug metabolism test component.
26. (Withdrawn) The system of Claim 25 wherein said prescription portion includes a homozygous positive test instruction, a heterozygous mid-positive test instruction and a negative test instruction.
27. (Withdrawn) The system of Claim 25 wherein said conditional dosage prescription includes a plurality of separate prescriptions wherein said plurality of separate prescriptions includes a first prescription for a homozygous positive test result, a second prescription for a heterozygous mid-positive test result and a third prescription for a negative test result.

28. (Withdrawn) The system of Claim 24 wherein said prescription means further includes an initial dose prescription.
29. (Withdrawn) The system of Claim 28 wherein said conditional dosage prescription includes a prescription portion instructing a prescription provider on dispensing said customized medical therapy based on the results of said drug metabolism test component.
30. (Withdrawn) The system of Claim 29 wherein said prescription portion includes a homozygous positive test instruction, a heterozygous mid-positive test instruction and a negative test instruction.
31. (Withdrawn) The system of Claim 28 wherein said conditional dosage prescription includes a plurality of separate prescriptions wherein said plurality of separate prescriptions includes a first prescription for a homozygous positive test result, a second prescription for a heterozygous mid-positive test result and a third prescription for a negative test result.
32. (Withdrawn) The system of Claim 28 wherein said initial dose prescription is for an initial dose of medical therapy selected from the group consisting of

mercaptopurine, flourouracil, or azathioprene.

- 33.** (Withdrawn) The system of Claim 24 wherein said prescription means further includes an initial dosage of said medical therapy.
- 34.** (Withdrawn) The system of Claim 33 wherein said conditional dosage prescription includes a prescription portion instructing a prescription provider on dispensing said customized medical therapy based on the results of said drug metabolism test component.
- 35.** (Withdrawn) The system of Claim 34 wherein said prescription portion includes a homozygous positive test instruction, a heterozygous mid-positive test instruction and a negative test instruction.
- 36.** (Withdrawn) The system of Claim 34 wherein said conditional dosage prescription includes a plurality of separate prescriptions wherein said plurality of separate prescriptions includes a first prescription for a homozygous positive test result, a second prescription for a heterozygous mid-positive test result and a third prescription for a negative test result.
- 37.** (Withdrawn) The system of Claim 33 wherein said initial dose of medical therapy

is a dose of mercaptopurine, flourouracil, or azathioprene.

- 38.** (Withdrawn) A method for customizing a medical therapy for a patient, said method comprising:
- obtaining the results of a drug metabolism test for said patient; and
 - prescribing a customized medical therapy based on said results.
- 39.** (Withdrawn) The method of Claim 38 further comprising providing said drug metabolism test to said patient.
- 40.** (Withdrawn) The method of Claim 38 further comprising instructing said patient to obtain a drug metabolism test and to follow the instructions of said drug metabolism test.
- 41.** (Withdrawn) The method of Claim 38 further comprising prescribing an initial dose of said medical therapy.
- 42.** (Withdrawn) The method of Claim 38 further comprising providing an initial dose of said medical therapy.
- 43.** (Withdrawn) A method of a treating medical disorder, said method comprising:

screening a patient for potential adverse reactions to a medical therapy; and
instructing said patient on the mechanism to obtain a customized medical
therapy based on the results of said screening step.

- 44.** (Withdrawn) The method of Claim 43 wherein said screening step further includes instructing said patient to obtain a drug metabolism test kit and to follow the instructions of said drug metabolism test kit.
- 45.** (Withdrawn) The method of Claim 43 wherein said instructing step further includes providing a prescription for a customized medical therapy based on the results of a drug metabolism test for said patient.
- 46.** (Withdrawn) The method of Claim 45 wherein said instructing step further includes providing a conditional prescription for a customized medical therapy having a prescription portion that includes a homozygous positive test instruction, a heterozygous mid-positive test instruction and a negative test instruction wherein only one of said test instructions are followed based on the results of said drug metabolism test.
- 47.** (Withdrawn) The method of Claim 45 wherein said instructing step further includes providing a plurality of prescriptions wherein said plurality of prescriptions

includes a first conditional prescription for a homozygous positive test result, a second conditional prescription for a heterozygous mid-positive test result and a third conditional prescription for based on the results of said drug metabolism test.

- 48.** (Withdrawn) The method of Claim 45 wherein said prescription providing step further includes providing a prescription for an initial dose of said medical therapy.
- 49.** (Withdrawn) The method of Claim 48 wherein said instructing step further includes providing a conditional prescription for a customized medical therapy having a prescription portion that includes a homozygous positive test instruction, a heterozygous mid-positive test instruction and a negative test instruction wherein only one of said test instructions are followed based on the results of said drug metabolism test.
- 50.** (Withdrawn) The method of Claim 48 wherein said instructing step further includes providing a plurality of prescriptions wherein said plurality of prescriptions includes a first conditional prescription for a homozygous positive test result, a second conditional prescription for a heterozygous mid-positive test result and a third conditional prescription for a negative test result wherein said plurality of prescriptions are based on the results of said drug metabolism test.

- 51.** (Withdrawn) The method of Claim 45 wherein said prescription providing step further includes providing an initial dose of said medical therapy.
- 52.** (Withdrawn) The method of Claim 51 wherein said instructing step further includes providing a conditional prescription for a customized medical therapy having a prescription portion that includes a homozygous positive test instruction, a heterozygous mid-positive test instruction and a negative test instruction wherein only one of said test instructions are followed based on the results of said drug metabolism test.
- 53.** (Withdrawn) The method of Claim 51 wherein said instructing step further includes providing a plurality of prescriptions wherein said plurality of prescriptions includes a first conditional prescription for a homozygous positive test result, a second conditional prescription for a heterozygous mid-positive test result and a third conditional prescription for a negative test result wherein said plurality of prescriptions are based on the results of said drug metabolism test.